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U. S. DEPARTMENT OF AGRICULTURE
Cooperative
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REPORT
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PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
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AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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Plant Pest Survey Section
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United States Department of Agriculture
Washington 25, D. C.

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

EUROPEAN CORN BORER development ahead of last year in Iowa and Indiana. Moths emerging in southern Illinois. (p. 391).

ARMYWORM infestations developing throughout Oklahoma, southeast and central Missouri and southern Illinois. Damage continues in some north Texas counties. North Carolina and Maryland also report infestations of concern in some areas. (p. 392). CUTWORMS requiring controls on wheat in central South Dakota. Also damaging wheat in some Montana counties, and continue problem in northeastern Colorado. Several additional States reported populations of some concern. (p. 393).

BILLBUGS causing heavy damage to corn in sections of Georgia and North Carolina. (p. 391). ALFALFA WEEVIL reported from new counties in West Virginia and New York. Problem expected in southwestern and south central Idaho. (pp. 393, 405).

MEADOW SPITTLEBUG still very abundant in eastern Indiana and northern Illinois. Maryland and West Virginia have moderate to heavy populations. (p. 394). PEA APHID building up in areas of Colorado, Oklahoma and Minnesota. (pp. 394, 406). POTATO LEAFHOPPER migrating into North Central States. (pp. 395, 405).

New county records for SOYBEAN CYST NEMATODE in Tennessee and Missouri. (p. 395).

CODLING MOTH emergence past peak in several areas. (p. 395). May have heavy second brood PLUM CURCULIO in southern Missouri. (p. 406).

BEEF LEAFHOPPER movement into crops in Idaho expected to be higher than usual. (p. 405). California and Texas also report on this pest. (p. 398). MEXICAN BEAN BEETLE appearing in eastern Virginia and southern Utah. (p. 398). COLORADO POTATO BEETLE eggs abundant at Yakima, Washington and general in eastern Maryland. (p. 398). SPIDER MITE injury severe on strawberries in eastern areas of Virginia and North Carolina. Heavy populations in eastern Maryland. (p. 399).

WHITE-FRINGED BEETLE damage to tobacco reported from local areas of North Carolina and Georgia. (p. 400).

High infestations of PINK BOLLWORM in some cotton in lower Rio Grande Valley, Texas. Indications pest becoming established in hibiscus in Monroe County, Florida. (p. 400).

SOUTHERN CATTLE TICK infestation reported from Florida. (p. 401).

SOUTHERN PINE BEETLE reported from Louisiana and Texas for first time in several years. (p. 402). SPRUCE NEEDLE MINER collected in California for first time. (p. 402).

Distribution of RANGE GRASSHOPPERS (p.409).

REPORT OF INSECT CONDITIONS 1955-1956 IN IRAQ. (p. 408).

Some of the more important pests for 1956. (pp. 410, 411, 412).

Reports in this issue are for the week ending May 17 unless otherwise designated.

WEATHER BUREAU 30-DAY OUTLOOK

MID-MAY TO MID-JUNE 1957

The Weather Bureau's 30-day outlook for the period mid-May to mid-June calls for temperatures to average below seasonal normals over most of the nation, except for above normal in the Northwest and extreme Southeast. This marks a major reversal from the unseasonable warmth which has prevailed over the eastern half of the country during the past 30 days. Precipitation is expected to equal or exceed normal over most areas, except for subnormal amounts along the West Coast and in the northern tier of states westward from the Great Lakes.

Weather forecast given here is based on the official 30-day "Resume and Outlook," published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price \$4.80 a year, \$2.40 a half year.

WEATHER OF THE WEEK ENDING MAY 20

Low pressure and frontal activity dominated the weather picture this week as a high pressure area centered over Hudson Bay steered Gulf of Alaskan storm centers southeastward over the western United States and Mexican lows northeastward over eastern portions of the country. On occasion, the cold Canadian air mass extended its influence into the Plains States, Great Lakes Region, and the Northeast. Precipitation was observed at most stations. Moderate to heavy weekly totals were common in nearly all sections. The principal exceptions were from the southeastern desert regions of California, eastward into Arizona, New Mexico and extreme southwestern Texas; in north-central portions of the northern Plains states, where heavier rains are now falling; sections of the central Gulf States; and isolated locations in middle Atlantic coastal areas. Again the central and southern Plains were the center of severe storm activity. Numerous deaths, personal injuries, and considerable property destruction resulted from a tornado which struck Silverton, Tex., on the 15th, and another which hit Kansas City on the 20th. Flooding continued in Oklahoma, Kansas, and Texas as excessive rains fell in these states. Experiencing the worst of these conditions was Oklahoma where, on the 15th, a 13.07-inch fall recorded at Hennessey was the 4th greatest 24-hour official record for the State, and unofficial reports of over 20 inches were received from Kingfisher County. In the Northeast, heavy rains on the 14th and 15th reduced fire hazard danger which has existed there for several weeks. A storm center of the 15th and 16th deposited snow in the mountains of Colorado and southern Wyoming, with over 10 inches being measured in Colorado. The snow pack at Wolf Creek Pass was increased to 66 inches. Moderate flooding was reported on the Jefferson and Big Hole Rivers in Montana, and minor flooding on the Russian and Kaweah Rivers in California. Temperatures for the week averaged above normal in the southeastern quarter, near normal to slightly above along the western Canadian Border, and below normal elsewhere. The greatest average departures were +6° to +8° from Arkansas through the southern Appalachian region to the central Atlantic coast, and -10° in central Nebraska. Temperatures in northern states from North Dakota eastward dropped to below freezing on one or more nights and northern New England reported a hard freeze on Friday with some damage to apples in Vermont and New Hampshire and possibly Maine.

(Summary Supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

EUROPEAN CORN BORER (Pyrausta nubilalis) - NEW JERSEY - One egg mass per 200 plants in Burlington County. (Ins.-Dis. News). WISCONSIN - Based on fall survey, number of overwintering larvae less than past 9 years. Survival of about 73 percent in Crawford, Dane, Iowa, Richland and Sauk Counties; about 83 percent in Fond du Lac County and about 92 percent in Sheboygan County. (Wis. Ins. Sur.). INDIANA - First moths taken in Orange County, light trap, May 7. First moths in this county in 1955, May 5 and 1956, May 21. (Deay). ILLINOIS - Pupation well underway in southern area and some moth emergence. Pupation beginning in central area. (Ill. Ins. Rept.). IOWA - Larvae pupating slowly; 2 percent at Ames and Ankeny. Development in behind 1955 but ahead of 1956. (Iowa Ins. Inf.). No pupation to May 17 in SOUTH DAKOTA and MINNESOTA.

GRASSHOPPERS - NORTH DAKOTA - A few first instars, 10-15 per square yard, in field margins and roadsides in several counties. (N. D. Ins. Rept.). SOUTH DAKOTA - No significant hatch of major crop species. (Hantsbarger). Populations of overwintering nymphs reached 15 per square yard in some local spots in Black Hills. (Burge). MINNESOTA - Very little egg development during week. (Minn. Ins. Rept.). UTAH - Storms delaying hatch. (Knowlton). KANSAS - Hatch continues, as many as 30 nymphs per square yard in one fence row in south central area. From 1 to 5 per square yard in east central area. (Gates, Matthew). MONTANA - First hatches in eastern area, probably Melanoplus sp. Abundant overwintering nymphs (Eritettix tricaratus, Arphia conspersa, Psoloessa delicatula) brought many inquiries. (Roemhild). OREGON - Began hatching in Gilliam County May 6. Light populations. (Chinn). NEW MEXICO - Hatch continues on rangeland in Lea, Roosevelt, Curry, Quay, Union, and Harding Counties; 1 to 23 per square yard, mostly first and second instars. (Durkin, May 11).

CORN EARWORM (Heliothis zea) - NORTH CAROLINA - Average of 22 larvae per 100 tassels on early sweet corn in Duplin County. (Farrier). ARKANSAS - First adults taken at light traps at Fayetteville, May 8 and Stuttgart, May 1. This is about a month later than in 1956. (Warren).

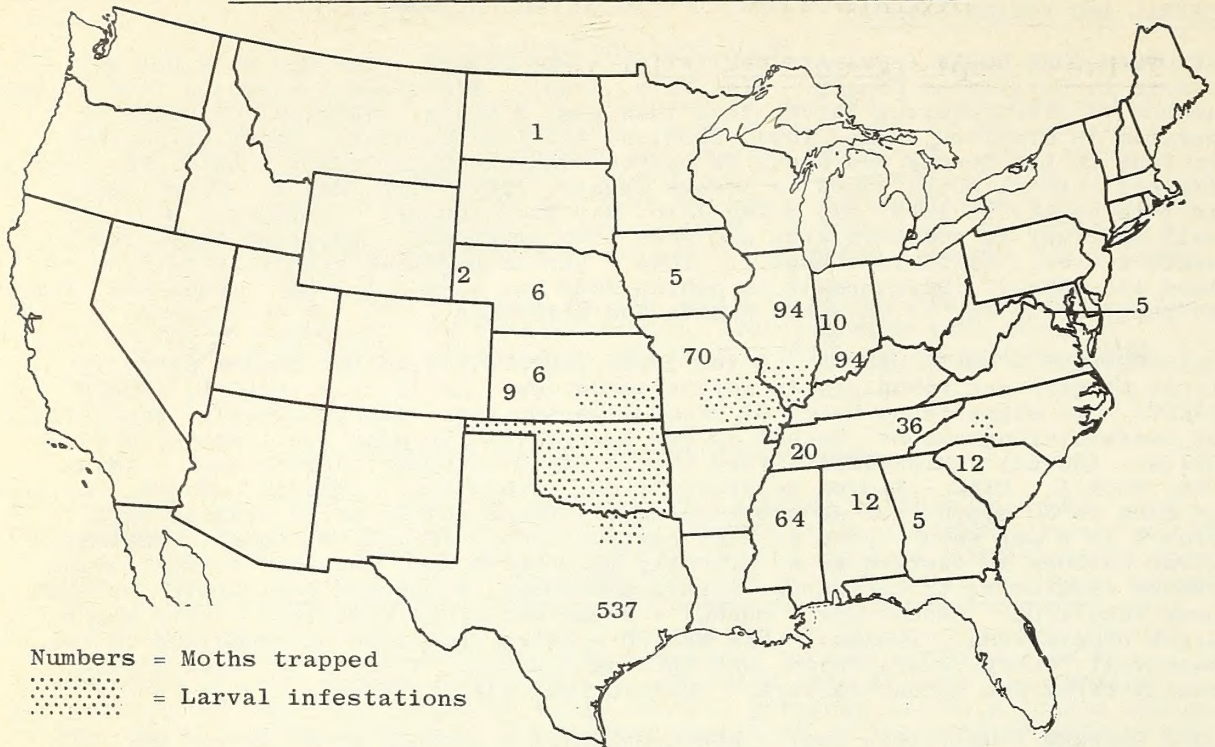
HESSIAN FLY (Phytophaga destructor) - GEORGIA - Moderate to heavy on wheat in Dougherty and Jeff Davis Counties. (Benton, Stewart).

WHITE-FRINGED BEETLES - FLORIDA - Three new infestations in Santa Rosa, Holmes and Jackson Counties comprising 8, 200 and 1,040 acres, resp. LOUISIANA - Four new infested properties totalling 43 acres found in Tangipahoa Parish. MISSISSIPPI - Very light infestations found along railroads at Mize, Tylertown, Bassfield, Carson, Silver Creek, Arm and Oakdale. GEORGIA - Heavy infestation in garden in Candler County, new infestation. (PPC, So. Reg., Apr. Rept.).

A WHEAT STEM MAGGOT (Meromyza sp.) - OREGON - Damage to bluegrass seed fields in Union County. (Every).

BILLBUGS - NORTH CAROLINA - Severe damage to many corn fields and many fields replanted in Jones County. One field had 100 percent infestation with average of 1 adult per stalk. (Scott). GEORGIA - Calendra sp. heavy on corn in Atkinson, Coffee, Dooly, Houston, Lowndes and Peach Counties. (Daniel, Davenport, Kessler, Harvey).

Armyworm Situation as Reported Week Ending May 17



ARMYWORM (*Pseudaletia unipuncta*)- MARYLAND - Generally light to moderate in small grain in Worcester County; some spraying. Most larvae over half grown. (U. Md., Ent. Dept.). NORTH CAROLINA - First outbreak of season in Catawba County; local on grain. Infesting 25-50 acres of grain in Davie County. (Giles, Williams, Jones). ILLINOIS - Larvae increasing in southern area but not reached danger point. (Ill. Ins. Rept.). KANSAS - Very few larvae and adults in east central and southeast areas. (Gates, Matthew). IOWA - Five moths in light trap at Ames May 14. (Iowa Ins. Inf.). TEXAS - Medium to heavy widespread on legumes and grains in Rockwall, Kaufman and Delta Counties; 7-30 per square foot. (Hawkins). MISSOURI - Economic populations in rank barley in southeast and central areas. Counts range from 2 to 11 per square foot in extreme southeast and from 1 to 7 in central area. Lighter number, 0 to 7 per square foot, in wheat, winter oats, fescue pastures and rye causing little or no economic damage to date. Thirty to 40 percent parasitized or diseased. Larvae range from second instar to full grown. Controls used in extreme southeast. (Kyd, Thomas). OKLAHOMA - Widespread in small grains and alfalfa in most sections of State; heaviest in southern and southwestern areas. Counts in Frederick area averaged 2 to 4 per square foot in fields. (Howell).

DATE MITE (Oligonychus pratensis) - WASHINGTON - Damaging Merion bluegrass at Dayton. (Sunderland).

CORN LEAF APHID (Rhopalosiphum maidis) - CALIFORNIA - Heavy on barley in Tehama County. (Cal. Coop. Rept., May 10).

FALSE WIREWORMS (Eleodes sp.) - SOUTH DAKOTA - Damaging some fields of winter wheat in central region. (Hantsbarger).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Attacking young sorghum in Pinal County; 160 acres treated. (Ariz. Coop. Rept.).

FLEA BEETLES - NEW JERSEY - One per 2 plants in some southern sweet corn. (Ins.-Dis. News).

WIREWORMS - UTAH - Moderate to severe damage to wheat north of Collinston. (Cox).

AN APHID (Hyalopteriodes dactylidis) - PENNSYLVANIA - Considerable damage to orchardgrass in Cumberland County and over 600 acres yellowed in Fulton County. (Negley, Udine).

WHEAT CURL MITE (Aceria tulipae) - MONTANA - Wheat streak mosaic showing up in eastern and central areas. (Roemhild).

SOUTHERN CORN ROOTWORM (Diabrotica undecimpunctata howardi) - ALABAMA - Damaging several young crops in southern area. (Stephenson).

ALFALFA WEEVIL (Hypera postica) - PENNSYLVANIA - First records for Bedford and Huntingdon Counties. (Udine). Small larvae in terminals may require second treatment in south central area. (Pepper). VIRGINIA - Activity declined on alfalfa but clovers and other crops adjacent to heavily infested unsprayed fields being damaged. Soybean plants next to alfalfa killed for average distance of 35 feet into field; many adults around living plants closest to alfalfa. (Morris). MARYLAND - Damage to untreated alfalfa moderate to heavy in most sections. First-generation adults in most fields but larval populations still persist. Infestations this year have increased in Washington and Allegany Counties. (U. Md., Ent. Dept.). NORTH CAROLINA - Reared on vetches (Vicia angustifolia and V. sativa) in Wake County. (Weisman). NEW JERSEY - From 20-50 egg masses per 100 alfalfa stems in central and northern area. (Ins.-Dis. News). WEST VIRGINIA - Light to heavy on alfalfa. Now occurs in 13 counties: Berkeley, Jefferson, Morgan, Mineral, Hampshire, Hardy, Grant, Monongalia, Randolph, Pendleton, Pocahontas, Greenbrier, Monroe. (W. Va. Ins. Surv.). UTAH - Larvae commonly found. (Knowlton).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - INDIANA - Averaging 30-40 per 100 sweeps in red clover near Marion. (Everly). ILLINOIS - Adults throughout State; 0-240 per 100 sweeps in clover and alfalfa. One hundred percent of stems in some red clover fields infested by larvae. Feeding in terminals also. (Ill. Ins. Rept.).

CUTWORMS - NORTH DAKOTA - Scattered infestations damaging alfalfa and in one instance, seedling barley in western area; from 1 to 6 per square foot. Heavy damage, 4 per square foot, in infestation in Grant County. (N. D. Ins. Rept.). SOUTH DAKOTA - Three Chorizagrotis auxiliaris larvae per square foot in alfalfa in Butte County. (Leslie). Additions winter wheat fields in central area being damaged by Agrotis orthogonia; controls underway. (Lofgren). TEXAS - Average 7-8 per square foot in alfalfa in Rockwall County. Heavy widespread, 25-30 per square foot, in vetch and oats in Delta County. (Hawkins). Heavy local damage to vetch and wheat in Collin County. (Dahlberg). MONTANA - Chorizagrotis auxiliaris damaged wheat in Liberty, Cascade, Big Horn and Hill Counties, May 7. Abundant in wheat in Fergus and Judith Basin Counties, May 1. Ornamentals damaged in Valley County and wheat and alfalfa in Prairie and Yellowstone Counties. (Roemhild).

COLORADO - Cutworm complex (C. auxiliaris, Peridroma margaritosa, Agrotis orthogonia) continues to demand attention in northeastern area. (Ext. Serv., Exp. Sta.).

THRIPS - GEORGIA - Moderate to heavy on peanuts in Coffee County. (Torrance).

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - NORTH CAROLINA - Ladino clover-orchardgrass mixtures killed in streaks in Forsyth County. (Austin, Scott, Farrier).

A WEBWORM (Loxostege sp.) - MARYLAND - Very heavy, controls needed, one alfalfa field in Allegany County. (U. Md., Ent. Dept.).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - MARYLAND - Moderate to heavy on alfalfa and clover in Allegany, Garrett and Washington. Some Allegany County fields averaged over 5 nymphs per stem. (U. Md., Ent. Dept.). WISCONSIN - Per 10 alfalfa stems: two in one Grant County field, less than one in a Lafayette County field, 5 in one Jefferson County field. (Wis. Ins. Sur.). INDIANA - Still very abundant in eastern area from north to south; average 3 to 6 nymphs per stem. (Osmun). ILLINOIS - Nymphs very abundant in northern area; as many as 2.6 per stem in some fields. (Ill. Ins. Rept.). WEST VIRGINIA - Heavy to moderate in alfalfa in Monroe and Greenbrier Counties. (W. Va. Ins. Surv.).

SPITTLEBUGS - PENNSYLVANIA - Heavy in unsprayed legume fields in Dauphin County. (Sleesman).

CLOVER ROOT BORER(Sitona hispidula) - INDIANA - Averaging 15-20 per 100 sweeps in red clover near Marion. (Everly).

A NITIDULID (Meligethes aeneus) - INDIANA - Abundant on red clover near Marion, averaging 20-30 per 100 sweeps. (Everly).

SPOTTED ALFALFA APHID - PENNSYLVANIA - None found in Bedford and Huntingdon Counties. (Udine). NORTH CAROLINA - Noticeable honeydew in one field, smaller numbers in two other fields in Franklin County. (Dogger). ARIZONA - Being kept under control by high populations of lady beetles and lacewings in Pinal County. Decreasing in two fields in Graham County. (Ariz. Coop. Rept.). KANSAS - Winged forms becoming more abundant; however, general populations only slightly increasing, 3-400 per 25 sweeps. No infestations requiring controls reported to May 18. (Matthew). IOWA - One immature aphid Iowa County. (Iowa Ins. Inf.). NEW MEXICO - Continues to build-up across southern quarter of State. Med. to heavy in spring-seeded alfalfa with some killing. (Durkin, May 11). Spotted alfalfa aphid had not been found to May 17 in previously infested states of COLORADO, WISCONSIN, SOUTH DAKOTA, MINNESOTA, ILLINOIS, INDIANA.

PEA APHID (Macrosiphum pisi) - MARYLAND - Light to moderate generally. Some fields in Washington and Allegany Counties have 200 per sweep. (U. Md., Ent. Dept.). WISCONSIN - Populations appear low and behind last year's in parts of southern and southwestern areas but increasing. Predators relatively scarce. (Wis. Ins. Sur.). SOUTH DAKOTA - Increased to 4 per 10 sweeps in alfalfa in east central area. (Hantsbarger). MINNESOTA - From 0-14 per sweep in south central and southwest districts. Many winged. (Minn. Ins. Rept.). ILLINOIS - Scarce in northern half of State but building up in southern area where as many as 25 per sweep. (Ill. Ins. Rept.). KANSAS - Remains non-economic to light throughout alfalfa-growing areas of eastern half of State. As high as 150-200 per sweep in some counties. (Matthew). TEXAS - Light to heavy on vetch in Delta, Hunt and Rockwall Counties; 15 to over 100 per sweep. (Hawkins). UTAH - Spotted, abundant to damaging in limited areas. (Knowlton). MONTANA - Abundant in Lewis and Clark and Yellowstone Counties on alfalfa. High parasitism in Yellowstone County. (Roemhild). COLORADO - Beginning to build up in alfalfa in Montrose, Delta and Garfield Counties. (Exp. Sta.). WASHINGTON - Averaging 20 per 10 sweeps on alfalfa at Othello, 25 per 10 sweep at Warden, 40 per 10 at Moses Lake. (Landis).

PLANT BUGS - MINNESOTA - Adelphocoris lineolatus and A. rapidus hatching in small numbers; 0-10 per sweep in south central and southwest districts. Low numbers of Lygus lineolaris. (Minn. Ins. Rept.). ILLINOIS - From 20-1600 plant bug nymphs per 100 sweeps in clover and alfalfa over State, heaviest southern areas. Lygus lineolaris adults range 0-240 per 100 sweeps in clover and alfalfa throughout State. (Ill. Ins. Rept.). ARIZONA - Lygus spp. adults and nymphs increasing on alfalfa in Pinal County; as high as 75 per 100 sweeps. (Ariz. Coop. Rept.). IOWA - Tarnished plant bug averages 2 per 10 sweeps in alfalfa. (Iowa Ins. Inf.). OREGON - Lygus populations remain high in beet and alfalfa fields in Umatilla County. Controls necessary for these pests and leafhoppers in this county. (Bierman). NEW MEXICO - Heavy in uncut alfalfa in Dona Ana County, 80 per 100 sweeps. (Durkin, May 11).

POTATO LEAFHOPPER (Empoasca fabae) - INDIANA - Empoasca prob. fabae becoming abundant in southwest area, 1-14 per sweep in alfalfa. (Wilson). First Empoasca sp. taken in light trap May 7. (Deay). ILLINOIS - Adults throughout State; 8-740 per 100 sweeps in alfalfa fields. Heaviest in 60-80 mile band north of line from St. Louis to Champaign. A large migration from Gulf States occurred during week. (Ill. Ins. Rept.). KANSAS - Leafhoppers, probably E. fabae, found in alfalfa in northeastern area; averaged 72 per 100 sweeps in Wyandotte and Johnson Counties. Western edge of first migration pattern appears to be near Manhattan, Riley County. (Matthew). IOWA - One per sweep in alfalfa in Iowa County, 1 per 10 sweeps in Tama County, May 15. (Iowa Ins. Inf.). Not found to May 17 in WISCONSIN and MINNESOTA.

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - MINNESOTA - From 0-5 per sweep in alfalfa in south central district, 0-2 in southwest. (Minn. Ins. Rept.). IOWA - Five per 10 sweeps in alfalfa in eastern area. (Iowa Ins. Inf.).

CLOVER HEAD CATERPILLAR (Grapholitha interstinctana) - ILLINOIS - Adults throughout State; 0-70 per 100 sweeps in clover and alfalfa. (Ill. Ins. Rept.).

SOYBEAN CYST NEMATODE (Heterodera glycines) - MISSOURI - Two new infestations during April, one in Pemiscot County and one in New Madrid County. Infestation in New Madrid first record for county. (PPC, Cent. Reg.). TENNESSEE - Found in Obion and Lauderdale Counties. These new infestations make total of 22 infested fields in four counties representing 2,365 acres, exclusive of the Lauderdale County infestation where acreage not determined. ARKANSAS - Soybean cyst nematode has been found in 10 fields, representing 6,573 acres, in Mississippi County. (PPC, So. Reg., Apr. Rept.).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - PENNSYLVANIA - Adults emerging fairly rapid; almost all larvae pupated in south central area. (Pepper). MARYLAND - Moths emerging May 11 at Hancock. (U. Md., Ent. Dept.). OHIO - Heavy emergence at Wooster on May 13, 14 and 15. (Cutright). INDIANA - An estimated 35 percent of overwintering larvae emerged as adults in Vincennes area. Egg laying began May 9. First larval entries expected May 16 and 17. Entries will increase rapidly from May 19 to 25. (Hamilton). ILLINOIS - First-brood emergence probably reached peak between May 10 and 13, in Carbondale area. No entrances in fruit to May 15. (Chandler). MINNESOTA - Moth emergence nearly complete in La Crescent area. (Minn. Ins. Bull.). MISSOURI - Heavy emergence in southeast area. (Wkly. Rept. Fruit Growers). MONTANA - Many request for information because of heavy infestation in 1956. (Roemhild). COLORADO - Peak emergence May 7 in Mesa County; 94 moths in 5 traps. (Exp. Sta.). UTAH - No moths yet in northern and central areas. Storms evidently retarding emergence. (Davis).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - MASSACHUSETTS - Eggs began to hatch. (Crop Pest Cont. Mess.). MARYLAND - Populations light at Hancock. (U. Md., Ent. Dept.). VIRGINIA - Small to half grown larvae on apple orchards in Augusta County. (Woodside). OHIO - First larvae at Wooster May 13. (Cutright). MINNESOTA - Hatch began May 14 and 15 in southeastern area. (Minn. Ins. Bull.).

UNSPOTTED TENTIFORM LEAF MINER (Callisto geminatella) - OHIO - First mines noted May 15 in southern area. (Cutright). MISSOURI - Reported from northwest and from Boonville area of central Missouri. (Wkly. Rept. Fruit Growers).

ROSY APPLE APHID (Anuraphis roseus) - OHIO - Light infestations. (Cutright).

APPLE APHID (Aphis pomi) - MASSACHUSETTS - Prevalent some orchards. (Crop Pest Cont. Mess.). VIRGINIA - Readily seen on apples in Augusta County. (Woodside).

WOOLLY APPLE APHID (Eriosoma lanigerum) - ARIZONA - Large numbers beginning to appear on apple at Safford, Graham County. Infestations light to heavy on 10 trees. (Ariz. Coop. Rept.).

A SCARABAEID (Pleocoma edwardsi) - CALIFORNIA - Heavy on apple roots in Oroville, Butte County. (Cal. Coop. Rept., May 10).

APPLE FLEA WEEVIL (Rhynchaenus pallicornis) - OHIO - Numerous injured leaves in Cincinnati area with larvae present. Injury not commercial. (Cutright).

EUROPEAN FRUIT LECANIUM (Lecanium corni) - CALIFORNIA - Fairly heavy infestation on crab apple May 13. Eggs ready to hatch. (Baker). COLORADO - Infestations of concern on plum, peaches and apricots in Montrose County. (Exp. Sta.).

PERIODICAL CICADA (Magicicada septendecim) - PENNSYLVANIA - First adults observed on apple in York County. (Pepper). VIRGINIA - Emerging in mountainous counties. First adults May 7 in Dickenson County (Amos), May 8 in Buchanan County and May 10 in Wise County. (McCormick, Rowell). Adults expected heavy in Frederick and Rockingham Counties and western mountainous counties. (Amos). NORTH CAROLINA - Adults emerging at Moravian Falls in Wilkes County; infestations heavy and spotted. (Turnipseed). OHIO - Emerging in Jackson County May 16; Lawrence County May 11 and 12. (Cutright, Goleman). NOTE: T. E. Moore, who is studying Magicicada spp., would appreciate receiving periodical cicada specimens, either dried or in alcohol. Specimens may be sent to him at Museum of Zoology, University of Michigan, Ann Arbor. All stages of the insects are desired.

PEACH TWIG BORER (Anarsia lineatella) - UTAH - Damaging peach and apricot buds and twigs in San Juan, Grand, Tooele and Salt Lake Counties. (Knowlton).

PEAR LEAF BLISTER MITE (Eriophyes pyri) - OHIO - First leaf injury noted May 9. (Cutright). COLORADO - Heavy infestation in Mesa County. (Exp. Sta.).

PEAR PSYLLA (Psylla pyricola) - CALIFORNIA - Populations low in Mendocino County. (Cal. Coop. Rept., May 10).

PEAR-SLUG (Caliroa cerasi) - WASHINGTON - First adults trapped May 13 at Prosser. (Frick).

PLUM CURCULIO (Conotrachelus nenuphar) - OHIO - Numbers jarred from peaches and plums increased during week. First punctures on plum May 14. (Rings). ILLINOIS - Total of 35 jarred from 5 untreated peach trees at Mounds on May 14. This is probably peak of first brood which is nearly 9 times peak in same trees in 1956. May expect trouble in orchards not properly treated in 1957. (Chandler). MISSOURI - Half-grown larvae in fruit all areas. Adult activity apparently over. Infestations in southeast seem heavier than several preceding years. May be heavy second brood in southern area. (Wkly. Rept. Fruit Growers).

CAT-FACING INSECTS - OHIO - Lygus lineolaris populations decreased on peaches. Acrosternum hilare and Euschistus tristigmus began migrating into peach orchards in Wayne County. (Rings). INDIANA - Stink bugs heavy in Orleans area (Marshall) and active in Vincennes area (Hamilton). ILLINOIS - Reduction in number of stink bugs jarred at Mounds and Sesser. Percentage of catfaced fruit will apparently run fairly high. (Chandler).

CURCULIOS - NEW JERSEY - Injury to apple and peaches over State. (Ins.-Dis. News.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - NEW JERSEY - Twig injury not apparent, although moths present. (Ins.-Dis. News.). ILLINOIS - Larvae entering terminals of peach in Carbondale area. Infestation likely to be increased this year. (Chandler).

GREEN PEACH APHID (Myzus persicae) - NEW MEXICO - Heavy on peaches in Rio Arriba County. (Durkin, May 11).

EUROPEAN RED MITE (Metatetranychus ulmi) - NEW JERSEY - Eggs hatching southern area. (Ins.-Dis. News.). MARYLAND - Populations light at Hancock. (U. Md., Ent. Dept.). PA. - Becoming plentiful in untreated orchards, south central. (Pepper).

A FILBERT APHID (Myzocallis coryli) - OREGON - Building up in orchards throughout Willamette Valley. Averaged 40 per leaf of 50 leaf samples taken in two orchards. (Capizzi).

BLACK CHERRY APHID (Myzus cerasi) - UTAH - Conspicuously prevalent in Weber and on sweet cherries at Moab. (Davis, Knowlton).

WESTERN CHERRY FRUIT FLY (Rhagoletis cingulata indifferens) - WASHINGTON - First adult trapped on May 16. (Frick).

EIGHT-SPOTTED FORESTER (Alypia octomaculata) - KANSAS - Larvae causing injury to commercial grapes one location in Jefferson County. About 4 percent of tips infested. (Matthew).

Mediterranean Fruit Fly Survey, Southern Region: During April trapping was continued in Mobile and Foley districts of ALABAMA. In MISSISSIPPI, 15 traps continued operation along coast; no suspicious specimens found. In LOUISIANA 35 traps operated in Buras section with no suspicious specimens collected. All catches in 261 traps in 5 TEXAS counties negative. (PPC, So. Reg., Apr. Rept.).

MEXICAN FRUIT FLY (Anastrepha ludens) - TEXAS - Thirty-nine additional larval infestations found during April in Rio Grande Valley, bringing season's total to 73 properties. Due to these findings, approximately 2,000 additional tons of grapefruit were brought under treatment requirements. Adult catch for the season in the Rio Grande Valley totals 168 specimens. (PPC, So. Reg., Apr. Rept.).

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Total of 76,556 trees inspected during April on 2,805 properties with 83 trees found infested on 12 properties. All infestations in Tamaulipas and Nuevo Leon in eastern area. (PPC, Mex. Reg. Apr. Rept.).

PECAN NUT CASEBEARER (Acrobasis caryae) - TEXAS - Eggs fairly numerous from College Station south. Some hatched in area of Dewitt, Gonzales and Guadalupe Counties. From Travis County to Bell County, majority in pupal stage; egg laying expected May 13 to 17. From San Saba County to Hood County, majority in overwintering larval stage. Some egg laying expected week of May 13 to 17, but peak should be from May 20 to 24. (Hancock).

BLACK-HEADED FIREWORM (Rhopobota naevana) - OREGON - Infesting many cranberry bogs in Coos County. (Capizzi).

TRUCK CROP INSECTS

CABBAGE APHIDS - IOWA - Overwintering eggs hatched and reproduce some commercial plantings. (Iowa Ins. Infor.).

CABBAGE CURCULIO (*Ceutorhynchus rapae*) - MISSOURI - Destructive infestations of larvae in young cabbage in Carrollton and Advance areas. (Wkly. Rept. Fruit Growers).

ASPARAGUS BEETLES (*Crioceris* spp.) - WASHINGTON - *C. asparagi* and *C. duodecimpunctata* require control many asparagus fields. (Klostermeyer). RHODE ISLAND - Relatively large numbers of *C. asparagi* eggs and adults at Jamestown. (Brazil).

PEA APHID (*Macrosiphum pisi*) - OREGON - Counts very high, 61 per tip, in field peas in Marion County. (Larson). WASHINGTON - Averaged 1 per 10 sweeps on peas at Warden and Quincy. (Landis).

BEET LEAFHOPPER (*Circulifer tenellus*) - CALIFORNIA - Population survey in Imperial Valley week of April 22 revealed some increase on both beets and weed hosts since March. Highest populations found in Mt. Signal, Seeley, Calipatria and Calexico areas. Thirty-six beet fields averaged .9 leafhoppers per 10 sweeps. No curly top found in tomato or flax fields in Holtville area. (Cal. Dept. Agric.). TEXAS - Light local infestations on Russian-thistle in Zavala and Dimmit Counties. First found since March 21. (Richardson).

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - VIRGINIA - Few adults coming out of hibernation in Norfolk area. (Brubaker, Greenwood, Hofmaster). SOUTH CAROLINA - Noted at Orangeburg. (Barnwell). GEORGIA - Heavy infestations on snap beans in Grady and Thomas Counties. (Johnson). UTAH - Appearing on beans at Bluff. (Knowlton).

BEAN LEAF BEETLE (*Cerotoma trifurcata*) - VIRGINIA - Adults causing noticeable injury to young beans at Norfolk and on the Eastern Shore. (Brubaker, Greenwood, Hofmaster). GEORGIA - Light to moderate infestations on snap beans in Grady and Thomas Counties. (Johnson). INDIANA - Averaged 20 per 100 sweeps in red clover near Marion. (Everly).

THRIPS - VIRGINIA - Injury to green onions in Norfolk area. (Brubaker, Greenwood, Hofmaster).

ONION MAGGOT (*Hylemya antiqua*) - OREGON - Third instars in fields at Lake Labish. Damage apparently light. (Crowell).

TOMATO HORNWORMS (*Protoparce* sp.) - GEORGIA - Depositing eggs on tomatoes in Peach County. (Snapp, May 10).

TOMATO FRUITWORM (*Heliothis zea*) - GEORGIA - Light infestations in Grady, Thomas, and Colquitt Counties. (Johnson).

SUCKFLY (*Cyrtopeltis minimus*) - TEXAS - Light local infestation on tomatoes in Dimmit County. (Richardson).

STINK BUGS - GEORGIA - Light infestations of *Nezara viridula* and *Euschistus servus* on tomatoes in Thomas and Irwin Counties; heavy in Colquitt County. (Johnson).

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - MARYLAND - Adults and eggs general on potatoes and tomatoes in Worcester and Wicomico Counties. (U. Md., Ent. Dept.). VIRGINIA - Moderately infesting Irish potatoes on Eastern Shore. Considerable feeding injury where larvae present. (Brubaker, Greenwood, Hofmaster). WASHINGTON - Large numbers of eggs on potatoes at Yakima. (Landis). Adults on potatoes at Othello and Warden (Landis) and abundant at Prosser on early potatoes (Klostermeyer).

ALABAMA - Requiring control in southern area. (Stephenson).

SOUTHERN ARMYWORM (Prodenia eridania) - MISSISSIPPI - Feeding on Irish potato plants in Jackson County and tomato plants in Harrison County. (Bond, Price).

POTATO LEAFHOPPER (Empoasca fabae) - PENNSYLVANIA - Adults present in southeastern area on potatoes. (Menusan).

LEAF-FOOTED BUG (Leptoglossus phyllopus) - NORTH CAROLINA - Adults averaged 19 per 36 feet of row in Irish potatoes locally in Duplin County; causing severe wilting of tips. (Reid, Farrier).

FLEA BEETLES - NEW JERSEY - Some damage to tomato plants in Camden County. (Ins.-Dis. News.). PENNSYLVANIA - Increased numbers of Epitrix cucumeris on tomatoes and potatoes in south central and southeastern areas. (Menusan). MARYLAND - Light to moderate on potatoes and tomatoes in Worcester and Wicomico Counties. (U. Md., Ent. Dept.). VIRGINIA - Very heavy on crucifers some Augusta County gardens. (Woodside). Considerable injury to lower leaves of potato foliage on Eastern Shore. (Brubaker, Greenwood, Hofmaster).

CUTWORMS - WASHINGTON - Damaging hops at Grandview (Landis) and hops, sweet corn and asparagus at Prosser (Klostermeyer).

TOMATO PSYLLID (Paratrioza cockerelli) - COLORADO - Averaged 30 adults per 100 sweeps in Larimer County on matrimony vine; first of season. (Exp. Sta.).

STRAWBERRY LEAF ROLLER (Ancylis comptana fragariae) - ILLINOIS - Very light in Centralia area and moderate in Union County. Apparently not severe this year. (Chandler).

SPIDER MITES - MARYLAND - Heavy on strawberries on lower Eastern Shore. Weather favorable for buildup. (U. Md., Ent. Dept.). VIRGINIA - Injury severe to strawberries on Eastern Shore. (Brubaker, Greenwood, Hofmaster). NORTH CAROLINA - Tetranychus atlanticus so severe to strawberries in Duplin County that number of growers turning under beds; control considered ineffective. Degree of infestation independent of mulch depth. (Reid, Brett). ILLINOIS - Present to some extent in all strawberry fields in Centralia area; large numbers one field. Very few in Jackson area. (Chandler). WISCONSIN - Found on raspberry and strawberry plantings last of April and first of May in western Waushara County. (Wis. Ins. Rept.).

A STRAWBERRY ROOT WEEVIL (Brachyrhinus rugosostriatus) - MARYLAND - Severe larval injury to strawberry plant roots at Cumberland; now pupating. Det. W. H. Anderson. (U. Md., Ent. Dept.).

SLUGS - MISSOURI - Considerable trouble in strawberry beds in southeastern area. (Wkly. Rept. Fruit Growers).

OMNIVOROUS LEAF TIER (Cnephasia longana) - OREGON - Entering strawberry fields in Marion County week of May 12. (Stephenson).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - MARYLAND - Moderate to heavy on strawberries in Baltimore and Howard Counties. (U. Md., Ent. Dept.).

RED-NECKED CANE BORER (Agrilus ruficollis) - WISCONSIN - Many canes raspberry killed; number appears greater than for several years. (Wis. Ins. Rept.).

TOBACCO INSECTS

TOBACCO BUDWORM (Heliothis virescens) - GEORGIA - Light infestations in 12 counties; heavy in Grady County. (Johnson).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - NORTH CAROLINA - Injury light to moderate most tobacco fields in Jones County. (Scott).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - FLORIDA - Larvae collected on shade tobacco at Quincy. Det. H. W. Capps. (Tappan, May 2).

CABBAGE LOOPER (Trichoplusia ni) - FLORIDA - Larvae infesting shade tobacco at Quincy. About 7 percent of plants show damage. Det. H. W. Capps. (Tappan, May 2).

STINK BUGS - GEORGIA - Nezara viridula and Euschistus servus light in Atkinson County; moderate in Mitchell, Grady, Colquitt, Tift, Irwin, Coffee, Bacon, Evans, Bulloch and Emanuel Counties; and heavy in Appling, Tattnall and Cook Counties. (Daniel, Smith, Johnson).

WIREWORMS - NORTH CAROLINA - Severely infested many tobacco fields in Jones County; one field 98 percent infested was replanted. (Scott).

WHITE-FRINGED BEETLES (Graphognathus spp.) - NORTH CAROLINA - Larvae damaged 70 percent of tobacco in 6 acre field in Pender County; loss estimated at 35 dollars. Adjacent field 10 percent loss. (Uzzle, Kelly). GEORGIA - Damaged field in Irwin County so extensively replanting of portion necessary. (PPC, Sou. Reg., Apr. Rept.).

A SOD WEBWORM - NORTH CAROLINA - Larvae injured several acres of tobacco in Sampson County. (Harris, Scott).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - NORTH CAROLINA - First weevils seen on May 14 with average of 2 to 3 per 100 cotton plants in Scotland County. (McMahan, Jones). SOUTH CAROLINA - Percent survival to May 17 at Florence: 1957-4.5, 1956-6.3, 1955-2.7. Boll weevil emergence in trap plot to this date: 1957-63, 1956-41, 1955-35. Of 20 fields inspected in Florence County, 3 had weevils at rates of 50, 150 and 200 per acre. (Walker et al.). Considerable emergence at Orangeburg. (Nettles). MISSISSIPPI - Found in 6 fields of seedling cotton in delta counties, 50-500 per acre. (Merkl et al.). LOUISIANA - Considerably heavier in seedling cotton than last week in Madison Parish. Found in 22 of 41 fields at rate of 50-750 per acre. Percentage survival in hibernation cages to May 17: 1957-.22, 1956-.86, 1955-.56. (Smith et al.). TEXAS - Survival percentage in cages at Waco to May 17: 1957-4.9, 1956-.04, 1955-4.1. Weevils found in 4 of 9 fields at rate of 32 per acre for all fields. (Parencia et al.). Light in Lamar, Jim Wells and Refugio Counties. (Gaines). GEORGIA - Of 34 fields examined in 10 south and central counties 32 were infested with a range of 0-360 weevils per acre. (Johnson).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Bloom inspection in lower Rio Grande Valley revealed infestations in nearly all fields. Rather high infestations in some instances. FLORIDA - Inspections in Monroe County indicate that pink bollworm has succeeded in becoming established in hibiscus plantings, perhaps more this year than last. Sixty-eight specimens of pink bollworm were collected in April during inspection of 4,408 hibiscus blooms. (PPC, So. Reg., April Rept.).

BOLLWORMS (Heliothis spp. et al.) - MISSISSIPPI - A few eggs on seedling cotton in delta counties. (Merkl et al.).

FLEAHOPPERS - TEXAS - Light in LaSalle, medium in Lamar and light to heavy in some coastal bend counties. (Gaines).

THRIPS - TEXAS - Light in coastal bend area and in Zavala and LaSalle Counties, heavy in Lamar County. (Gaines). Light in McLennan and Falls Counties. (Parencia et al.). ARIZONA - Moderate to heavy in general in Maricopa and Pima Counties, May 10; considerable treatment. Infestation increasing in Pinal County, 2,300 acres treated. (Ariz. Coop. Rept.). LOUISIANA - Considerable damage to cotton that was up before low temperatures occurred May 6; some treatment. (Smith et al.). SOUTH CAROLINA - Damage appearing as far east as Aiken and Orangeburg. (Nettles).

APHIDS - LOUISIANA - Mostly light in Madison Parish. (Smith et al.). TEXAS - Light in McLennan and Falls Counties. (Parencia et al.). Medium in Fort Bend County. (Gaines). ARIZONA - Decreased generally in Maricopa and Pima Counties week ending May 10. Average of 40 aphids and 4 lady beetle larvae per 100 plants in fields near Safford. (Ariz. Coop. Rept.). NEW MEXICO - Aphis medicaginis light to medium and general in cotton fields in Dona Ana, Luna, Hidalgo and Socorro Counties. (Durkin, May 11).

SEED-CORN MAGGOT (Hylemya cilicrura) - NEW MEXICO - Damage to cotton in Dona Ana County. Seed germination and stands reduced considerably in scattered areas. Treated seed not affected. (Durkin, May 11).

CUTWORMS - ARIZONA - Infestations in some areas of Maricopa and Pima Counties warranted control May 10. Twenty acres treated in Pinal County. (Ariz. Coop. Rept.). MISSISSIPPI - Damage less than last week. (Merkl et al.).

DARKLING BEETLES - ARIZONA - Moderate in a few cotton fields in Maricopa and Pima Counties, May 10. (Ariz. Coop. Rept.).

CABBAGE LOOPER (Trichoplusia ni) - ARIZONA - Light to moderate on cotton in a few fields in Maricopa and Pima Counties, May 10. Some damage in Pinal County, 80 acres treated. (Ariz. Coop. Rept.).

BEE T ARMYWORM (Laphygma exigua) - ARIZONA - Incipient infestation in several cotton fields in Maricopa and Pima Counties, May 10. (Ariz. Coop. Rept.).

INSECTS AFFECTING MAN AND ANIMALS

SOUTHERN CATTLE TICK (Boophilus annulatus microplus) - FLORIDA - Found, April 23 on a ranch in southern part of Okeechobee County, for the first time since the State had been declared free of the pest in 1950. The species, which is a vector of cattle fever, has been located on 3 more ranches in that county and one ranch in Dade County. However, so far the ticks do not appear to be infected. More than 100 ranches in the following 10 Florida Counties have been placed under quarantine: Palm Beach, Hendry, Broward, St. Lucie, Glades, Highlands, Martin, Taylor, Dade and Okeechobee. Until the recent outbreak in the State, the only area in the United States infested was a narrow buffer zone in parts of 8 counties along the lower Rio Grande River in Texas. This area has been kept under quarantine as a protective measure. An eradication program conducted by the Florida Livestock Board and Agricultural Research Service, is now underway. (U. S. Dept. Agr. Press Release 1543-57).

HOUSE FLY (Musca domestica) - NORTH CAROLINA - Unusually heavy populations locally in Wake County. (Jones).

BLACK FLIES - IOWA - Annoying at Ames. (Iowa Ins. Infor.).

NORTHERN CATTLE GRUB (Hypoderma bovis) - RHODE ISLAND - Very light infestation compared with same period in 1956. (Hyland).

FLIES - VIRGINIA - Combination of Siphona irritans and Hypoderma sp. seriously reduced milk production on dairy herd at Blacksburg. (Turner, Hampton). Heel flies present and chasing cattle in Lee County. (Morris).

MOSQUITOES - MINNESOTA - Aedes trichurus, A. intrudens, A. spencerii and A. implicatus active at Itasca State Park and emergence of other species, especially A. communis and A. punctor now occurring. (Minn. Ins. Rept.). SOUTH DAKOTA - Culex sp. becoming more abundant in north central and eastern areas. (Hantsbarger). UTAH - Annoying in number of counties. (Knowlton). CALIFORNIA - Populations of female Culex tarsalis generally low over State. Aedes spp.--mostly A. nigromaculis, A. melanimon, in small numbers though widely distributed over central and southern San Joaquin Valley. (Cal. Coop. Rept., May 10).

CATTLE LICE - VIRGINIA - Heavy on younger animals in beef herd in Lee County. (Morris).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

SPRUCE APHID (Aphis abietina) - OREGON - Very large numbers on Sitka spruce in Newport area. Needles noticeably yellowed. (Bock).

PINE BARK APHID (Pineus strobi) - PENNSYLVANIA - Very heavy infestation on white pine in Huntingdon County. (Udine).

PINE NEEDLE SCALE (Phenacaspis pinifoliae) - INDIANA - Hatching at Lafayette on May 13. (Schuder). MINNESOTA - Hatching began approximately May 10. (Minn. Ins. Bul.).

SPRUCE NEEDLE MINER (Taniva albolineana) - WISCONSIN - Nearly full-grown larvae actively feeding on needles in Milwaukee County. (Wis. Ins. Rept.). CALIFORNIA - Collected first time in State at Alturas, Modoc County, February 15, 1957. Collector Loring White. (Harper).

PINE SPITTLEBUG (Aphrophora parallela) - MARYLAND - Light to heavy on young pines most sections. Population increased past 3 years. (U. Md., Ent. Dept.). WISCONSIN- Spittle masses appearing in Wood County. (Wis. Ins. Rept.).

MITES - MARYLAND - Build-ups on evergreens continue most sections. (U. Md., Ent. Dept.). WEST VIRGINIA - Severely attacking hemlock in Tyler County. (W. Va. Ins. Surv.).

WHITE-PINE WEEVIL (Pissodes strobi) - WISCONSIN - Adults numerous in Langlade and Burnett Counties with as many as 2 per tree on May 6. (Wis. Ins. Rept.).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - TEXAS - First infestation since 1951 in east Texas. Occasional infested logs were found near Kountze in 1956. Last infestation in this area, 9 trees, found in April. LOUISIANA - For first time in possibly 40 years southern pine beetle has been discovered killing timber in State. Active infestation found in March in East Baton Rouge Parish. Other spot infestations involving scattered trees and small groups of trees have been found in 3 other parishes. ALABAMA - Since first of year, small new outbreaks have been frequent on National Forests. MISSISSIPPI - Infestations apparently static in former epidemic areas. (So. For. Pest Rept.). VIRGINIA - Scattered to local damage to pines in several districts. (For. Pest Surv., Apr. Rept.).

A SHORT-TAILED CRICKET (Anurogryllus muticus) - LOUISIANA - Caused extreme losses on newly-germinated slash pine seedlings in a test of fall seeding on open, cutover land at Alexandria. (So. For. Pest Rept.).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - ALABAMA - Heavily infested pine seedlings in southern Mobile County. (Shotts).

SAWFLIES - VIRGINIA - Number of reports of damage in eastern half of State to mainly Virginia pine and to lesser extent shortleaf pine during late April and early May. By May 6 most larvae pupated in Cumberland State Forest and full-grown in Culpeper area. (For. Pest Surv. Apr. Rept.).

BALSAM-FIR SAWFLY (Neodiprion abietis) - WISCONSIN - Eggs numerous in Door County May 10. (Wis. Ins. Rept.).

LARCH CASEBEARER (Coleophora laricella) - WISCONSIN - Populations high in north-eastern and north central areas; larvae mining new needles on May 10. (Wis. Ins. Rept.).

JACK-PINE BUDWORM (Choristoneura pinus) - WISCONSIN - Third instars feeding in northwestern area and in Oneida County. (Wis. Ins. Rept.).

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Larvae appearing in Fond du Lac County. (Wis. Ins. Rept.).

A WEEVIL (Brachyrhinus meridionalis) - CALIFORNIA - Medium on arborvitae at Antioch, Contra Costa County. (Cal. Coop. Rept., May 10).

RHODODENDRON WHITE FLY (Dialeurodes chittendeni) - WASHINGTON - Heavy infestation on rhododendron at Sumner. First observation in area. (Doucette).

NARCISSUS BULB FLY (Lampetia equestris) - WASHINGTON - First adults at Sumner May 4. Approximately 20 percent emergence in concentrators at laboratory on May 13. (Doucette).

OYSTERSHELL SCALE (Lepidosaphes ulmi) - INDIANA - Hatched on lilac at Columbus on May 11. (Schuder). UTAH - Severe at Manti. Several hundred trees treated along main streets. (Funk).

LILAC LEAF MINER (Gracilaria syringella) - WASHINGTON - Blotches very numerous on lilacs in gardens around Sumner. Apparently started developing about May 1. (Doucette).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - PENNSYLVANIA - Larvae migrating generally. (Sleesman). VIRGINIA - Larvae, probably this species, damaging foliage of hosts over State. (Morris). ALABAMA - Defoliating wild cherry in Birmingham. Some trees killed. (Blackwell, Prestage). WISCONSIN - Noticeable many sections; numerous along roadsides in Price County. (Wis. Ins. Rept.). WEST VIRGINIA - Defoliating most neglected apple and cherry trees over State. Damaging strawberries in Randolph County. (W. Va. Ins. Surv.). RHODE ISLAND - Very heavy infestation over Providence County. (Mathewson). Third instars moderate on flowering cherry nursery stock at Middletown and wild cherry at Kingston. (Stoner).

GREAT BASIN TENT CATERPILLAR (Malacosoma fragilis) - UTAH - Defoliating cottonwoods in San Juan and Washington Counties. (Knowlton).

GYPSY MOTH (Porthetria dispar) - NEW YORK - PENNSYLVANIA - Hatching observed last week April. (PPC, East. Reg.). RHODE ISLAND - Heavy infestation of second-instar larvae on maple and rose at one location in Wakefield, May 10. (Stoner).

WOOLLY ALDER APHID (Prociphilus tessellatus) - VIRGINIA - Heavy on some Norway maples in Blacksburg and area of Montgomery County. (Rowell, Osborn).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - KANSAS - Emergence about 75 percent completed in Leavenworth County. (Thompson). RHODE ISLAND - Large increase in pupation at Hamilton and Kingston. Estimated 80 percent pupated. (Stoner).

LOCUST LEAF MINER (Chalepus dorsalis) - MARYLAND - Adults appearing on black locust in Central area. (U. Md., Ent. Dept.).

APHIDS - MISSOURI - Tremendous increase on ornamentals. (Wkly. Rept. Fruit Growers).

AZALEA WHITEFLY (Aleyrodes azaleae) - RHODE ISLAND - Observed on azalea in nurseries at North Providence and Cranston. Especially heavy on some varieties. (Mathewson).

STORED PRODUCTS INSECTS

Khapra beetle survey, April 1957: Inspections in SOUTH DAKOTA, MINNESOTA, WISCONSIN, ILLINOIS and INDIANA were negative. (PPC, Cent. Reg.). No infestations found in ARIZONA. Reinspections were conducted in Kern, San Luis Obispo and Imperial Counties in CALIFORNIA with one new infestation found at Holtville, Imperial County. In northern California, inspections in Kings, Contra Costa, Yolo, Del Norte, Mendocino, Larsen and Colusa were negative. Inspections in NEW MEXICO were in Bernalillo, Sandoval, Curry, Roosevelt, Chaves, Eddy, Hidalgo, Lea and Otero Counties with one new infestation found 11 miles south of Tolar, Roosevelt County. Inspections in UTAH and OREGON were negative. (PPC, West. Reg.). Inspections in Richmond, VIRGINIA negative. (PPC, East. Reg.). Inspections of such facilities as grain storage, feed stores, grain elevators and railroad cars were made in 5 counties in ALABAMA, 2 counties in FLORIDA, 1 county in MISSISSIPPI, 25 parishes in LOUISIANA, 1 county in ARKANSAS and 1 county in OKLAHOMA. All results on specimens submitted to end of April have been negative. (PPC, So. Reg.). One infested property found in Mexicali, BAJA CALIFORNIA, MEXICO of 77 properties inspected. In SONORA, 24 properties were inspected in the Hermosillo district with all specimens submitted negative. (PPC, Mex. Reg.).

Khapra Beetle Progress Report

The cumulative treatment summary as of April 30, 1957 is as follows:

State	Tot. Inf. Sites	Tot. Vol. Cu. Ft.	Sites Treated & Released	Vol. Treated & Released	Methyl Br. Used in lbs.
Arizona	151	45,419,511 ^{1/}	121	41,404,346	360,436
California	293	78,586,177	278	78,108,180	600,555
New Mexico	6	440,900	5	415,400	3,680
Rep. Mexico	44	11,491,241	42	10,432,169	90,311
Totals	494	135,937,829	446	130,360,095	1,054,982

HIDE BEETLE (Dermestes maculatus) - TEXAS - Heavy infestation of larvae and adults on 450 bags of liver meal at Houston. (Boles).

CHEESE SKIPPER (Piophilha casei) - NORTH CAROLINA - Heaviest damage by larvae in years to cured meat in State. (Christen).

^{1/} Adjusted to reflect difference between estimated and actual.

BENEFICIAL INSECTS

LADY BEETLES - OREGON - *Stethorus* sp. controlled early spring outbreaks of two-spotted spider mite on raspberries in Linn County. (Rosenstiel). IOWA - Scarce, 1 per 50 sweeps, in alfalfa in eastern area. (Iowa Ins. Infor.).

HONEY BEE (*Apis mellifera*) - WISCONSIN - Development about normal. (Wis. Ins. Rept.).

BUMBLE BEES - WISCONSIN - Apparently more scarce than normal. (Wis. Ins. Rept.).

MISCELLANEOUS INSECTS

IMPORTED FIRE ANT (*Solenopsis saevissima* v. *richteri*) - SOUTH CAROLINA - Collected in Charleston on 18 April. Det. M. R. Smith. (Berly). ALABAMA - Some instances of undermining of railroad tracks reported. Serious damage to young corn at Monroeville. MISSISSIPPI - Infestations reported for first time in Adams, Jefferson, Claiborne, Franklin and Lawrence Counties. ARKANSAS - Colony reported in nursery at Magnolia, Columbia County. (PPC, Sou. Reg., Apr. Rept.).

TERMITES - PENNSYLVANIA - Numerous requests for information. (Udine).

WASHINGTON - *Reticulitermes hesperus* flights in Prosser. (Klostermeyer).

CLOVER MITE (*Bryobia praetiosa*) - MONTANA - Infestations in houses in Gallatin, Fergus, Powder River and Judith Basin Counties. Not as abundant this year. (Roemhild).

MIDGES (*Tendipes* spp.) - WISCONSIN - Large numbers emerged in Lake Winnebago vicinity on May 8 and on highway between Lake Pepin and Alma May 3. Midges numerous above highway in spots. (Wis. Ins. Rept.).

ADDITIONAL NOTES

IDAHO - Weather has prevented much early spring ALFALFA WEEVIL control and now adults occur abundantly in alfalfa in southwestern and south central areas. General hatching has not occurred. APHIDS expected to become problem in southern area unless weather changes and predators increase. CLOVER MITES continuing to cause considerable concern to householders in Moscow vicinity. CLOVER ROOT CURCULIO particularly abundant in many fields in Canyon County. GARDEN SYMPHYLID infesting field of onions in Parma; believed to be first infestation in Canyon County. First-instar GRASSHOPPER nymphs feeding on roadsides in southern Adams and northern Washington Counties. ONION MAGGOT egg-laying reaching serious proportions in many fields in Canyon and Payette Counties. Larval damage beginning and further serious damage expected. PEA APHID becoming abundant in Payette and Canyon Counties and more severe infestations expected. ROCKY MOUNTAIN WOOD TICK numerous in sagebrush range pastures of south central area. SWEETCLOVER WEEVIL often extremely abundant in sweet-clover in south central area. (Gittins et al). Current indications are that number of spring-generation BEET LEAFHOPPERS which will move from spring breeding areas into cultivated districts of southwestern Idaho and the Magic Valley will be higher than usual and this movement under normal weather conditions will start in late May. (Twin Falls Field Sta.).

CALIFORNIA - CORN LEAF APHID heavy on barley in Shasta County. Many early-planted cotton fields in western and northern Imperial Valley had light to heavy damage, 25-30 per loss of stand. Light to moderate infestations of BEET ARMYWORM in local fields of cotton. AN APHID (*Cinara curvipes*) heavy on *Cedrus deodara* at Modesto, more troublesome than usual. POPLAR PETIOLE GALL APHID heavy on cottonwood at Oroville, Butte County. Populations of *Culex tarsalis* mosquitoes, generally low over State except in extreme south coastal area. (Cal. Coop. Rept.).

MISSOURI - CUTWORMS are light to heavy causing varying degrees of damage to seedling cotton, small corn and gardens in scattered areas. Larvae from third instar to full grown. (Kyd, Thomas). POTATO LEAFHOPPER counts on alfalfa in extreme southeast average 1 to 2 adults per 25 sweeps. In Boone County counts were 379 per 100 sweeps. (Munson, Brown). LEAF ROLLERS heavily infesting oak and hickory throughout central and southern Ozark areas. Damage to foliage relatively light. (Kyd, Thomas).

OKLAHOMA - Populations of SPOTTED ALFALFA APHID remain low most sections; counts in central counties averaged 40-50 per 10 sweeps. (Coppock, Bryan). Initial hatch of range GRASSHOPPERS starting in northwestern and Panhandle areas; numbers very low. (Coppock, Flora). Twenty-four percent pupation of SOUTHWESTERN CORN BORER at Stillwater on May 15. (Gifford). PEA APHID continues to build up rapidly in all areas excluding the northwest and panhandle. From 300-400 per 10 sweeps common in Logan County. (Coppock). VARIEGATED CUTWORM becoming common in alfalfa and small grain many sections. Counts in Frederick area 2-3 per square foot in alfalfa and less than 1 per square foot in small grain. SYRPHID FLY larvae and LADY BEETLES present in small grains in Frederick area. (Howell). Populations ENGLISH GRAIN APHID increasing in central area. Average approximately 175 per 10 sweeps in Frederick area. (Coppock, Howell).

NEW YORK - Peak activity of RED-BANDED LEAF ROLLER in eastern area was May 1. TENT CATERPILLARS more abundant in sprayed orchards this year in Niagara County. EUROPEAN CORN BORER moths first noted May 13 in screen house at Poughkeepsie. CORN FLEA BEETLE at low level in Hudson Valley. ASPARAGUS BEETLES very active on untreated plantings in Orange County. CUTWORM damage to tomatoes in Schenectady County quite severe some areas. ALFALFA WEEVIL now found in 6 counties in State: Dutchess, Putnam, Rockland, Ulster, Sullivan and Orange Counties. Heaviest damage in alfalfa field in Harriman, Orange County, where 7 adults and 100 larvae taken per 100 sweeps. SPITTLEBUGS increasing rapidly on alfalfa in Ulster County. (Wkly. Rept.).

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. yps.	Prod. orn.	Perid. marg.	Feltia subt.	Heliothis zea vires.	Protoparce sexta quin.	
COLORADO (Counties)								
Otero 5/2		14						
Mesa 5/2		4						
TEXAS								
Winter Haven 5/1-15	9	17	3	7	83	6		
Waco 5/11-17	537	30	90	349	72	6		
KANSAS								
Garden City 5/2-16	9	1						
Hays 5/8-14	6	7						
NEBRASKA (Counties)								
Lincoln 5/10-12	6	1		9				
Scotts Bluff 5/1-2	2	2						
NORTH DAKOTA								
No Location 5/16	1							
MISSOURI								
Columbia 5/11-17	70	9						
MISSISSIPPI								
Grenada 5/6-10	18	6	3		3	3		
State College 5/11-17	64	1	3	1	1	6	2	1
*Stoneville 5/3-9	22	52	33	8	29	18	1	2
TENNESSEE (Counties)								
Madison 5/7-13	20	4				4		
Maury	18	6						
Robertson	19							
Cumberland	22					6		
Knox	36	10				17		
Green	14	4				8		
Monroe	23	16						1
Johnson	34	15				13		
ALABAMA (Counties)								
Lee 5/11,14,16	1		10			16	2	4
De Kalb 5/11,14,16	12			10		20	5	5
GEORGIA (County)								
Spalding 5/10-16	5	5	38	14	47	33	1	5 7
FLORIDA								
Gainesville 5/14					4			
Quincy 5/13							2	
SOUTH CAROLINA (Counties)								
Florence 5/11-17	8	12	28	16	23	27	1	5
Charleston 5/13-19	1	5	1	4	5	2		2
Oconee 5/11-17	12	2	15	10	4	18		13 20
NORTH CAROLINA (Counties)								
Duplin 5/15-16			3			1		3 1
Johnston 5/15-16					1	12		2 2
MARYLAND (County)								
Montgomery 5/12-17	5	3						
INDIANA (Counties)								
Orange 5/8-13	94	10		5				
Tippecanoe 5/8-15	10		3					
ILLINOIS								
Urbana 5/9-15	94	5		25				

Additional Collections: INDIANA - Orange County (5/8-13), Empoasca sp. - 427

*Four Traps Stoneville

REPORT OF INSECT CONDITIONS 1955-1956 IN IRAQ

By Don Shallow

DESERT LOCUST (*Schistocerca gregaria*) was not severe during either year and control operations were confined to a few thousand scattered acres. The main area of infestation was in southern Iraq, along the Saudia Arabia border. No GRASSHOPPERS (*Dociostaurus moroccanus* or *Calliptamus italicus*) infestations were reported. Some grasshoppers found in Sulaimaniyah Liwa and Baghdad Liwa. A few acres in latter area were baited or sprayed.

SPINY BOLLWORM (*Earias insulana*) on cotton was the major economic pest during the period. Up to 85 percent of the squares and bolls were infested. The major areas of infestation were Baghdad Liwa, Diwaniyah Liwa, Kut Liwa and Mosul Liwa. During 1955 a total of about 24,000 acres were treated and in 1956 this was increased to 65,000 acres. Some fields were treated 2 or 3 times during both years. PINK BOLLWORM (*Pectinophora gossypiella*) has not been found in Iraq although it exists in Syria and Iran. The other major pest of cotton was the STRAWBERRY SPIDER MITE (*Tetranychus atlanticus*), det. E. W. Baker. In 1955, control was applied to 2,400 acres. There were no figures for 1956. The mite was found wherever cotton was grown.

SENN PEST (*Eurygaster integriceps*) was the main insect attacking barley and wheat. The area of infestation was largely in Sulaimaniyah and Mosul Liwas. During the spring of 1956 about 2,000 acres were under treatment with various chemicals to demonstrate control so that a program could be planned for the future. About 20 percent of senn pest eggs in the Sulaimaniyah area were naturally parasitized by Microphanurus semistriatus.

The number of deciduous fruit trees in Iraq is very limited. CODLING MOTH (*Carpocapsa pomonella*) was prevalent everywhere and no control measures were taken. Near Baghdad the WOOLLY APPLE APHID (*Eriosoma lanigerum*) was found infesting 13,400 apple trees in January 1955. By 1956, as many as 130,000 trees were treated. During 1955 an unsuccessful attempt was made to introduce the parasite (*Aphelinus mali*). The most prevalent and damaging insect of date palm trees was a fulgorid (*Ommatissus binotatus*). About 400,000 trees were dusted in the Basrah area in 1955 and 990,000 in 1956 in the Baghdad and Hilla Liwas. Another date insect found in scattered areas was A BOSTRICHID(Phonapate frontalis).

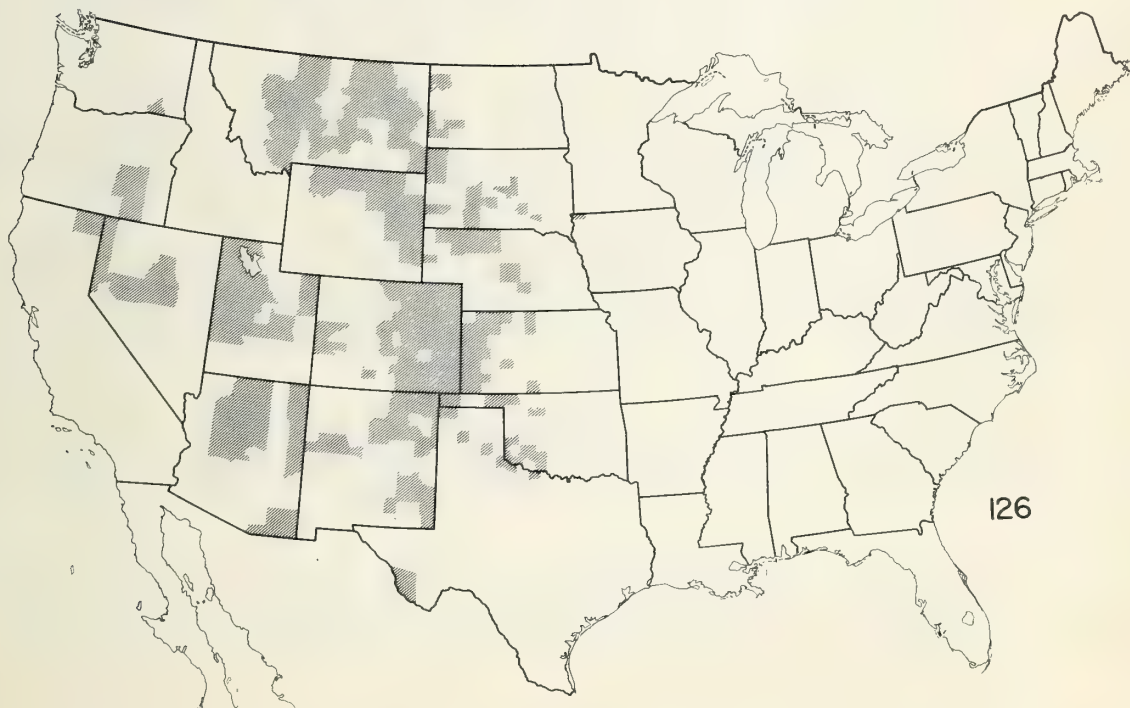
The two major insects of alfalfa were the ALFALFA WEEVIL (*Hypera postica*) and an aphid, probably the SPOTTED ALFALFA APHID. These insects were more prevalent in the northern half of the country and bred on wild clover and alfalfa in the Halebja area. Predators apparently kept down epidemics of the two species.

DISTRIBUTION OF RANGE GRASSHOPPERS

Trimerotropis gracillis (Thomas)



Trimerotropis latifasciata Scudder



Due to suggestions of cooperators, two categories of the more important pests of 1956 were requested last fall. These were "Crop and Forest pests" and "Man and Animal and Household pests". The majority of the States employed the two lists while some chose to use a single listing. In the table below where a State shows two lists, the first is for crop and forest pests and the second is for man and animal and household pests unless designated otherwise.

ARIZ.	Bollworm	Lygus bugs	Spotted al- falfa aphid hoppers	Spotted al- falfa aphid red scale	Cotton leaf perforator	Cabbage looper	Black flea- hoppers	Beet army- worm	Thrips on cotton	Three-cornered alfalfa hopper
ARK.	Boll weevil	Bollworm	Grass- hoppers	Horn fly	Aphids	Stored gr- ain ins.	Bark beetles	Spider mit- es	Termites	Cutworms
CALIF.	Corn ear- worm	Lygus bugs	Spotted al- falfa aphid hoppers	California red scale	Citrus red mite	Codling moth	Black scale	San Jose scale	Peach twig borer	Olive scale
COLO.	Peapota- to aphids	Potato psyllid	Sugar beet webworm	Mexican bean beetle	Spotted al- falfa aphid	Grass- hoppers	Heliothis zema	Cutworms	Root maggots	Two-spotted spider mite
CONN.	Mites	Scale	Termites	Gypsy moth	Apple maggot	Black vine weevil	Elm bark beetle	Mosquitoes	Birch leaf miner	Clover root
DELA.	European corn borer	Alfalfa weevil	Dusky sap beetle	Corn ear- worm	Colorado pot. beetle	Cabbage looper	Pea aphid	Bagworm	V. oakleaf caterpillar	Striped cucumber beetle
	Termites	Salt-marsh mosquito	House fly	Clover mite	Pavement ant	Indian- meal moth	American dog tick	Cockroaches	Boxelder bug	Crickets
GA.	Boll weevil	Bollworm	House fly	Termites	Rice weevil	Pine bark beetles	Horn fly	Honey bee	Aphids	Almond&Indian- meal moths
IDAHO	Alfalfa weevil	Onion maggot	Beet webworm	Colorado pot. beetle	Lygus bugs	Mites	Grass- hoppers	Clover	Elm leaf beetle	Clover weevils
	European earwig	Cattle lice	Yellow jackets	Horn flies	Clover mites	Mosquitoes	Cattle grubs	Termites	Cockroaches	House flies
ILL.	European corn borer	Cutworms	Pea aphids	Potato leafhopper	Wireworms	Corn ear- worm	Corn flea beetle	Grass- hoppers	Seed-corn maggot	S. alfalfa aphid
	House flies	Stable flies	Mosquitoes	Chiggers	Carpet beetles	Clover mites	Cattle lice	Termites	Boxelder bugs	Elm bark beetle Horn fly
IND.	Corn ear- worm	Potato leafhopper	European corn borer	Cutworms	Smaller Eur. bark beetle	Meadow spittlebug	Two-spotted mite	Codling moth	Hessian fly	Aphids
	House fly	E. subter- ranean term.	Mosquitoes	German chinch bugs	Horn fly	Black car- pet beetle	Stable fly	Oriental cockroach	Webbing clothes moth	Bran beetles
KAN.	Grass- hoppers	Corn ear- worm	Spotted al- falfa aphid	Chinch bug	Stored grain insects	Smaller Eur. elm bark bet.	False wireworm	Corn leaf aphid	Brown wheat mite	
	Cattle grubs	Termites	Biting flies	House fly	Roaches	Cattle lice	Carpet beetles	Mosquitoes	Clover mite	
ME.	Spruce budworm	Pine leaf aphid	Saddled prominent	Fall can- kerworm	Twig pruner	Elm leaf beetle	Beech scale	Birch leaf miner	Pales weevil	Balsam woolly aphid
MD.	European corn borer	Corn ear- worm	Alfalfa weevil	Hornworms	Angoumois grain moth	Mexican bean beetle	Aphids	Flea beetles	Cutworms	Pine sawflies
	Mosquitoes	House fly	Biting flies	Cattle grubs	Cattle lice	Ants	Cockroach- es	Clover mite	Termites	Old house borer
MASS.	Cabbage- worms	European corn borer	Plant bugs	Plum curculio	Codling moth	Apple maggot	Red-banded leafroller	Aphids	Birch leaf miner	
	Ants	Earwigs	Fleas	Hornets	House flies	Mosquitoes	Termites	Ticks		
MICH.	Fruit leafrollers	European fruitmoth	House flies	Wireworms	White grubs	European corn borer	Mexican bean beetle	Cabbage maggot	Seed corn maggot	Mites
	Carpet beetles	Boxelder bugs	House flies	Mosquitoes	Powder post beetles	Roaches	Ants	Cereal pests	Termites	Clover mites
MINN. (crop)	Grass- hoppers	European corn borer	Sweet-clov- er weevil	Pea aphid	Plant bugs	Crickets	Corn root- worms	Wireworms	Blister beetles	Armyworms
(forest)	Jack pine budworm	Spruce budworm	Forest tent caterpillar	Pine tort- oise scale	Pine tort- oise scale	Jack pine shoot moth	Pine needle scale	Conifer sawflies	Lecanium scale	White pine aphid

Some of the More Important Insect Pests for 1956 (Continued)

MO.	Grass-hoppers Termites	Corn ear-worm Brown ban-roach	Spotted al-falfa aphid House fly	Pea aphid Horn fly	Chinch bug Silverfish	Greenbug Mosquitoes	Spider mites Ticks	Corn flea beetle Clover mites	Hessian fly beetles	Vagabond crambus Stable fly
MONT.	Grass-hoppers Mosquitoes	Wireworms House flies	Alfalfa weevil Cattle	Wheat stem sawfly Cattle lice	Cutworms Barn flies	Lygus bugs Clover mites	Spruce budworm Stored gr. insects	Flea beetles Tabanids	Blister beetles Clothes moths	Wood ticks
NEB.	Grass-hoppers Mosquitoes	Corn ear-worm Stable flies	European corn borer House flies	Spotted alfalfa aphid Termites	Western army cutworm Cattle lice	Pale western cutworm Cattle	Corn root-insects Dermestids	Stored gr. insects Horn flies	Armyworm Poultry lice	Webworms Chiggers
NEV.	Alfalfa weevil Mosquitoes	Spotted alfalfa aphid Horn flies	Pea aphid Termites	Lygus bugs Cattle	Leafhoppers Cattle lice	Grass-hoppers Horn & stable flies	Elm leaf beetle	Corn ear-worm	Black cutworms	Yellow-striped armyworm
N. J.	Alfalfa weevil House fly	Corn ear-worm German cockroach	European corn borer Termites	Codling moth Black carpet beetle	Pea aphid Nor. house mosquito	Meadow spittlebug Salt-marsh mosquito	Cabbage looper mite	European red mite Stable fly	Two-spotted mite Indian-meal moth	Eastern field wireworm Pavement ant
N. M.	Spotted alfalfa aphid Horn fly	Grass-hoppers Cattle	Heliothis zea Mosquitoes	Mites House flies	Lygus bugs Lice	Cabbage looper Cockroaches	Aphids	Codling moth	Thrips	Stink bugs
N. C.	Mexican bean bet. House fly	Corn ear-worm Salt-marsh mosquito	Spotted cucumber bet. German cockroach	Rice weevil Nor. fowl mite	Tobacco wireworm Brown-band-stable fly	Japanese beetle Stable fly	Tobacco budworm Horn fly	Cigarette beetle Dog flea	Tobacco hornworm Webbing clothes moth	Boll weevil Eastern subterranean termite
N. D.	Grass-hoppers House fly	Wheat stem sawfly Horn fly	Wireworms Stable fly	Potato leafhopper Mosquitoes	Sugar beet root maggot Short-nosed cattle	European corn borer Cattle louse	Potato beetle grubs	Potato fleaColorado pot. beetle	Sweet-clover Mites on ornamentals	Mites on Dog and cat fleas
OHIO	Meadow spittlebug Termites	European corn borer House flies	Lesser clover leaf weevil Carpet beetles	Clover root borer Cattle grubs	Corn ear-worm Mosquitoes	Potato leaf-orchard hopper Cockroaches	Leaf-orchard mites Clothes moth	Japanese beetle Stable flies	Codling moth Ants	Apple maggot Chiggers
ORE.	Aphids Cattle	Mites Mosquitoes	Symphylids Earwigs	Western cher. fruit fly House flies	Codling moth Termites	Pear psylla Carpet beetles	Onion maggot Roaches	Alfalfa weevil Sheep ked	Mountain pine beetle Northern fowl mite	Spruce budworm Cattle lice
R. I.	Japanese beetle	European corn borer Cattle	Apple maggot Cattle	Corn ear-worm Stored gr. insects	Potato flea beetle Sweetclover weevil	Aphids Potato leafhopper	Leaf-hoppers weevil	House fly Army cut-worm	American dog tick Corm root-worms	Eastern Subterranean termite European corn borer
S. D.	Grass-hoppers Horn flies	Corn leaf aphid House flies	Spotted alfalfa aphid Mosquitoes	Stored gr. insects Fabric pests	weevil Cockroaches	leafhopper Stored food	weevil Cattle lice	worm Hog mange mites	Ants	Boxelder bug
UTAH	Grass-hoppers Cattle lice	Spotted alfalfa aphid House fly	Spider mites Termites	Lygus bugs Mosquitoes	Alfalfa weevil Sheep ked	Pea aphid Cattle grubs	Army cutworm Stored food pests	Black Hills Corn beetle Horn fly	Corn earworm European earwig	Stored grain beetle Cockroaches
VA.	Corn ear-worm House fly	Alfalfa weevil Cattle lice	So. corn rootworm Horn fly	So. pine beetle Cattle grubs	Rice weevil Cockroaches	Codling moth Poultry lice	Armyworm Clothes moth	Seed-corn maggot Stable fly	Tobacco hornworm Carpet beetles	
WASH.	Spider mites Mosquitoes	Onion maggot European earwig	Cutworms Termites	Sod webworms Cattle grubs	Codling moth Cattle lice	Potato aphids fox maggot	Strawberry Garden root weevil Clover mite	Garden symphylid Collembola	Wireworms Carpet beetle	Lygus bugs House fly

Some of the More Important Insect Pests for 1956 (Continued)

WIS.	Potato leafhopper	European corn borer	Grass-hoppers	Pea aphid	Jack-pine budworm	Apple maggot	Plant bugs	Cucumber beetles	White-pine weevil	Smaller European elm bark beetle
	Deer&horse flies	Mosquitoes	Horn fly	Stable fly	Carpet beetles	Case-making cloth. moth	American dog tick	Black car-penter ant	House fly	Clover mite
WYO.	Grass-hoppers	Cattle grubs	Cattle lice	Horn fly	Sheep ked	Alfalfa weevil	Lygus bugs	Cutworms	Mosquitoes	Horse fly

These lists were submitted by the State Clearing Offices after discussion and consultation with various entomologists.

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